ANNOTATIONES ZOOLOGICAE JAPONENSES
Volume 37, No. 4—December 1964

Published by the Zoological Society of Japan
Zoological Institute, Tokyo University

A New Representative of the Erecananinae (Phalangodidae: Phalangida) from Japan

With 3 Text-figures

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(*Communicated by* K. TAKEWAKI)

This paper is concerned with the description of a new representative of the Erecananinae belonging to the family Phalangodidae which has been found in Japan. The members of this subfamily were hitherto known from East Africa including Réunion and Madagascar, Southeast Asia such as Java, Philippine, Formosa, and Micronesia. They are thus primarily tropical and subtropical in their distribution. Hence, it appears that the occurrence of the present specimen in Japan suggests the northern limit of this group.

Suborder Gonyleptomorphi Šilhavý
Superfam. Gonyleptoidea Šilhavý
Fam. Phalangodidae Simon
Subfam. Erecananinae Roewer
Iyonus n. gen.

Carapace without a common eye tubercle, but with an enlarged median elevation between the eyes. Tergal region with five areas, the first of which divided into two halves. Each of the first to fourth tergal areas with a median pair of large spinose tubercles, fifth area and first to second free tergites of abdomen with a large median tubercle. Stigma hidden by the fourth coxa. Femur of first leg armed with long spines. Tarsi of third and fourth legs without scopulae and with simple, untoothed double claws. Tarsal segments: 2-2-3-3. Distitarsi of both first and second legs with a single segment. Metatarsi of legs not divided into astragali and calcanea. Palpus elongate, the segments armed with spines.

Type-species: *Iyonus yuyama* n. sp.

Remarks: The present genus is closely related to the genus *Erecanana*

Strand which is found in East Africa, Rêunion, and Madagascar, and the genus *Lomanius* Roewer which is found in Java, the Philippines, Formosa, and Micronesia. It differs markedly from these genera, however, in possessing three instead of four or five segments in tarsi III and IV, and also in having a divided first tergal area. The genus is named after Iyo, an older name of the province of the type locality.

Iyonus yuyama n. sp.[1]

(Figs. 1–3)

Female.—Measurements: Carapace 0.86 mm long, 1.31 mm wide at widest portion; tergal region 1.40 mm long, 2.00 mm wide at widest portion. Total length of body 2.95 mm.

Length of legs:

Legs	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.00	0.48	0.68	0.85	0.48	3.49 mm
II	1.70	0.55	1.67	1.40	0.80	6.12
III	1.25	0.50	1.00	1.50	0.50	4.75
IV	1.61	0.51	1.46	2.05	0.50	6.13

Body (Figs. 1–2) nearly ellipsoid as seen from above, frontal margin of carapace lightly curved; lateral margin of scutum widely rounded along the fourth coxa, hence lateral margin with two constrictions, widest at the posterior corner of scutum; abdomen bluntly pointed posteriorly. Eyes situated near the frontal margin. Between them there is a very large, strong elevation, protruding at the frontal margin, 0.36 mm high and terminating with a strong forward pointing spine which is 0.22 mm long and tipped with a stout hair (Fig. 3A). Immediately posterior to this spine is another weaker spine, and a few other tubercles also on the elevation. The entire dorsum including the carapace and median elevation is thickly covered with minute granulations and on such ground present numerous spinose tubercles as seen in Figure 3A. There is an enlarged blunt tooth just before the eye, which extends forward to touch another tooth occurring at the anterior margin of carapace. A row of four bluntly pointed teeth is present on the anterior lateral margin of carapace and a single tooth on the lateral margin above the first

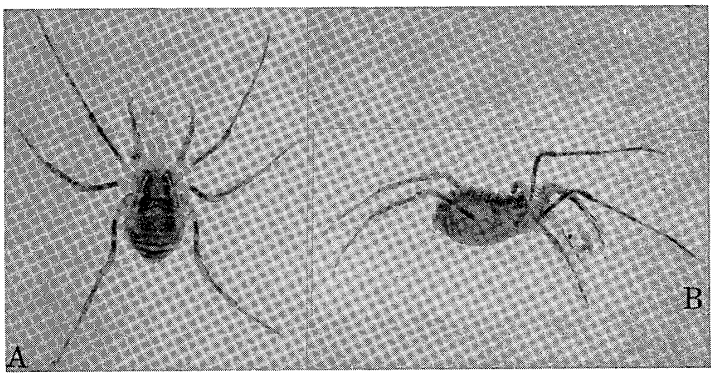

Fig. 1. *Iyonus yuyama* n. sp. A. Dorsal and B. lateral views of female. ×4

coxa. Both sides and the posterior portion of carapace clothed with numerous scattered tubercles. Tergal region with five areas, the boundaries of which distinct but not parallel. The second groove is strongly bowed and the first tergal area being constricted at the middle (Fig. 2). First to fourth tergal areas each furnished with rounded tubercles, more or less arranged in a transverse row. The median two are enlarged into paired tubercles, which increase in size posteriorly. These tubercles are tipped with a stout hair pointing posteriorad. Posterior margin of scutum, namely the fifth tergal area with a transverse row of numerous spinose tubercles, the mid one 0.15 mm in length being the largest. A longitudinal row of rounded tubercles along the lateral margin of scutum. A transverse row of somewhat enlarged tubercles across first and second free tergites of abdomen and here also the mid one is larger than the others. Tubercles are arranged on the third free tergite more or less in two series. Anal operculum with numerous small scattered tubercles.

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[1] The specific name is a noun in apposition after the type locality.

First coxa armed with a transverse row of strong, hair-tipped tubercles on the anterior border. Second to fourth coxae with a few scattered tubercles. Fourth coxa much broader than the others and provided with several large or small spines on the pro-lateral surface. Genital operculum covered with small spinose tubercles. Spiracle hidden by the fourth coxa. Each free sternite with a transverse row of small tubercles. Sternum gladiate; the maxillary lobe of the second coxa stout wedge-shaped, the frontal margin being curved.

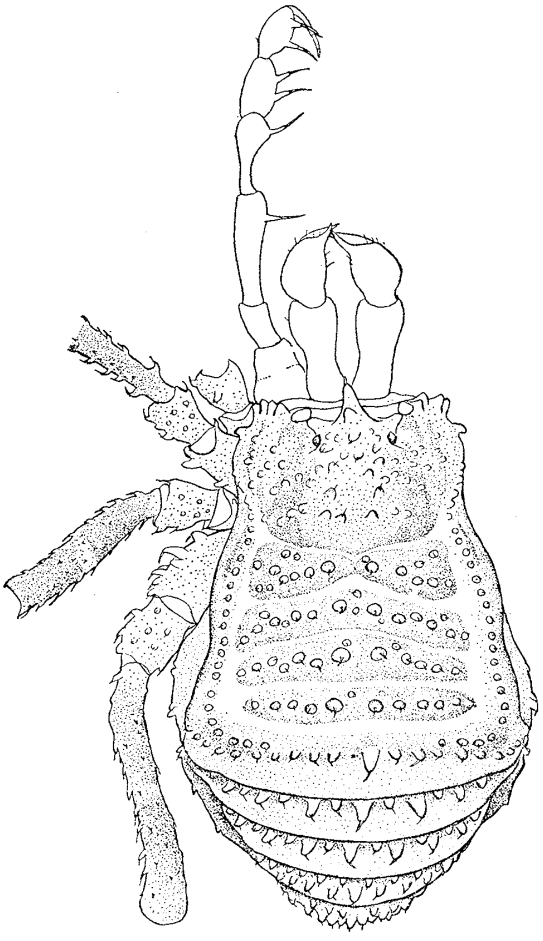

Fig. 2. *Iyonus yuyama* n. sp. Dorsal view of female. ×19

Chelicera: Proximal segment 0.29 mm wide, 0.42 mm long; distal segment 0.30 mm wide, 0.90 mm long. Proximal segment distally widened and furnished with a prominent dorsal protuberance, without armaments. Distal segment (Fig. 3B) normal, clothed with only scattered hairs. Chelae with about five teeth on the blades.

Palpus: Trochanter 0.18 mm wide, 0.26 mm long; femur 0.16 W, 0.69 L; patella 0.16 W, 0.48 L; tibia 0.17 W, 0.40 L; tarsus 0.16 W, 0.46 L. Total length 2.29 mm. Tarsal claw 0.40 mm long. Palpus (Fig. 2 and 3C–D) slightly shorter than body. Trochanter armed ventrally with a short spine. Femur armed with two long spines on basal one-third of the ventral surface and with an apical median spine; on one femur with an additional spine distally, at the ventrolateral margin. Patella elongate, distally widened, on each side of ventral surface with a long, apical spine. Tibia and tarsus each with two long spines on both sides of ventral surface. Tarsal claw only slightly shorter than tarsus.

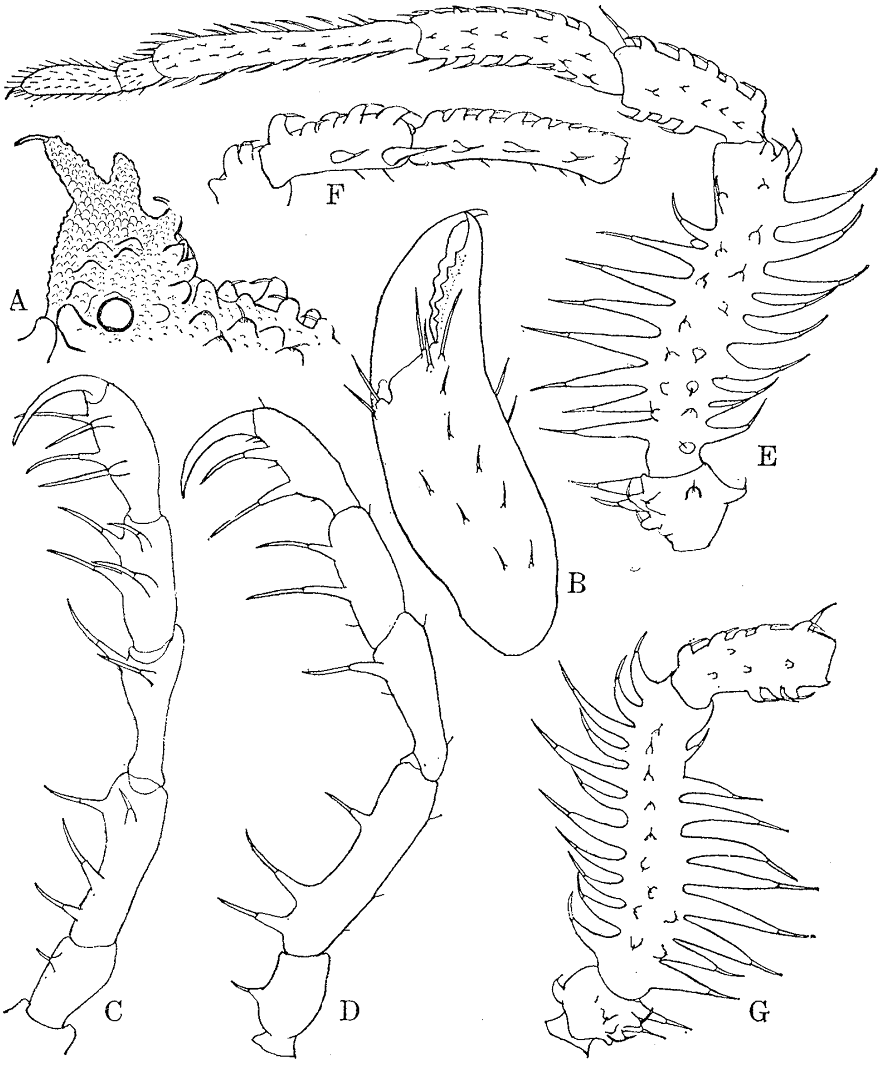

Fig. 3. *Iyonus yuyama* n. sp. ♀. A. Lateral view of median elevation of carapace. ×43 B. Distal segment of left chelicera, above. ×54 C–D. Left palpi: C. below and D. lateral. ×34 E. Left leg I, lateral, ×34 F. Patella and tibia of left leg I, medial. G. Trochanter to patella of right leg I, lateral.

Legs: First leg (Fig. 1 and 3E–G). Trochanter armed above with a conical spine and beneath with two strong spines, the distal one being longer, and a few conical spines, and in addition, a single spinose tubercle on the lateral surface. Femur somewhat enlarged and lightly curved in an S-shape; armed ventrally with a row of eight long spines and an additional short spine near the distal end; dorsally with a row of nine long spines and three smaller spines on either side of distal margin. Eleven instead of nine long spines are arranged on the dorsal margin of one femur and with no accessory spines (Fig. 3G). somewhat large tubercles are also present on the lateral surface. These tubercles are more or less arranged in two longitudinal series. Patella armed dorsally with a row of five conical spines, ventrally with three similar spines and medially with two spines, distal one of which being elongate (Fig. 3F); a few other tubercles on the lateral surface. Tibia with a row of conical spines above and below, three spines on the medial surface and a few scattered tubercles on the lateral surface. Metatarsus throughout with short seta-like hairs. Tarsus clothed only with hairs. Second to fourth legs. Trochanters II–IV clothed above and below with small tubercles, and in addition, a few conical spines on both fore and hind margins (Fig. 2). Second femur elongate, straight, but third and fourth femora somewhat enlarged and lightly curved in an S-shape. Femora II-IV with small conical spines, which are arranged more or less in longitudinal rows. Patellae and tibiae with rows of similar spines and tubercles. Armaments of metatarsi and tarsi are the same as in the first leg. Third and fourth tarsi without scopulae, and with simple double claws. Numbers of tarsal segments: 2–2–3–3. Distitarsi of both first and second tarsi with only one segment.

Color: Dorsum of the body reddish yellow with dark brown markings. Carapace with dark brown patches on either side. Eyes black. Tergal areas dark brown with a pale transverse groove. Fifth area and free tergites dark margined. Venter concolorous with dorsum. Free sternites dark margined. Chelicera and palpus light greyish yellow. Legs light yellowish with dark bands as shown in Figure 1.

Type: Hototype female, Aonami, Yuyama, Matsuyama City, Ehime Prefecture, June 23, 1959 (Kuniyasu Morikawa).

Type is doposited in the Zoological Laboratory of Hiroshima University.

Habitat: By personal communication, Dr. Morikawa reported the following data concerning the area in which this animal was captured. The area was covered by a thin wood of oaks, and the elevation was about 400 meters. The phalangodid was found by sifting fallen leaves.

The author wishes to thank Dr. K. Morikawa of Ehime University for placing the material at his disposal.

REFERENCES

Goodnight, C. J. and M. L. Goodnight 1957 Insects of Micronesia, **3**, 71.

———— 1959 Ark. Zool., **12**, 197.

Roewer, C. Fr. 1912 Arch. Naturg., **78** (3), 1.

———— 1923 Die Weberknechte der Erde (Jena).

———— 1927 Abh. Nat. Ver. Bremen, **26**, 261.

———— 1949 Senckenbergiana, **30**, 247.